

IN THE CLAIMS:

Please cancel claim 44 without prejudice.

Amend the claims as follows:

n⁴ Claim 37, line 1, delete "or claim 36".

n⁸ Claim 38, line 1, delete "or claim 36".

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43. (Twice Amended). [Apparatus] A method for effecting optical
interactance and reflectance measurements relative to a material, having a
characteristic to be measured, comprising the steps of:
providing optical means at a first predetermined distance from a surface
of said material, for defining on said material at least one illumination surface area
and at least one detection surface area which are separated, said surface areas on said
material defining at least one transmission path through an interior portion of said
material for performing interactance measurements, at least one of said surface areas
of one of said paths being extended in length at substantially constant spacing from
the other surface area of said one path[, and,] ;

providing said optical means at a second predetermined distance,
relative to the surface of said material, for defining illumination and detection surface
areas on said material which are at least partially superimposed thereby defining a
surface area on said material for performing diffuse reflectance measurements;

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cont [said optical means including means for] illuminating said illumination
area[, for] and detecting optical information received from said detection area[, and
for sensing] for developing signals representing said optical information obtained
from said material in response to said illumination; and

[means for] processing said signals detected by said optical means in
accordance with appropriate modeling techniques to determine quantitative or
qualitative characteristics of the material.

I2 ²¹ ~~45~~. (Twice Amended) The [apparatus] method as in claim ²⁰ ~~43~~ wherein
said optical means, at said first distance, [is operative to define] defines a plurality of
distinct illumination surface areas and at least one detection surface area, whereby a
plurality of different transmission paths are defined in said specimen.

²² ~~46~~. (Twice Amended) The [apparatus] method as in claim ²¹ ~~45~~ wherein
said optical means, at said first distance, [is operative to define] defines
at least one of said illumination surface areas as extended in length.

23

47. (Twice Amended) The [apparatus] method as in claim 45 wherein said optical means, at said first distance, [is operative to define] defines said at least one detection surface area as extended in length.

24

48. (Twice Amended) The [apparatus] method as in claim 43 wherein said optical means, at said first distance, [is operative to define] defines at least one of said illumination surface areas and said at least one detection surface areas as extended and parallel.

49. (Twice Amended) The [apparatus] method as in claim 43 wherein said optical means, at said first distance, [is operative to define] defines at least one of said surface areas to be extended and to define another of said surface areas to be distinct and contained within the boundary defined by said extended surface area.

50. (Twice Amended) The [apparatus] method as in claim 43 wherein said optical means, at said first distance, [is operative to define] defines said illumination and detection surface areas to be parallel.

51. (Twice Amended) The [apparatus] method as in claim 43 wherein said optical means, at said first distance, [is operative to define] defines said illumination and detection surface areas to be concentric.

52. (Twice Amended) The [apparatus] method as in claim 43 wherein said optical means, at said first distance, [is operative to define] defines a plurality of illumination and detection surface areas which are at least partially superimposed corresponding to said plurality of said second distances.

REMARKS

Applicant has cancelled claim 44 without prejudice, has eliminated the dependency of claims 37 and 38 to claim 36, and has amended claims 43 and 45-52. Claims 11-15, 17-19, 22-26, 35 and 53 have been allowed. Claims 1, 6, 7, 33, 34, 36-43 and 45-52 are still in issue.

Applicant confirms the comments made by the Examiner in paragraph 1 of the recent Office Action concerning the cancellation of claims 2, 8, 9 and 10.

With the cancellation of claim 44 and the rewriting of claims 37 and 38 to depend only on claim 7, the rejection to those claims under 35 U.S.C. § 112, paragraph 2 is rendered moot.